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ABSTRACT

This document describes the responsibilities and activities of the Pennsylvania Council on Vocational Education. Recommendations include the following: integration of academic and vocational tion; clustering of courses; articulation of secondary and postsecondary vocational education courses; provision for a continuum of prevocational, career and vocational education programming; review of the vocational education personnel development system; expansion of the availability of vocational education; school reimbursement based on students' achievement of performance standards; and strengthening vocational education through implementation of changes in the distribution of federal vocational education funds, research and evaluation, and increasing access to vocational education programs. A summary of findings of the on-site compliance review is included. Highlights of 26 noteworthy vocational education programs in the areas of advanced technology, assistance to at-risk youth and adults, programs for disabled persons, cooperative efforts with employers, joint efforts with private industry councils, and coordination between secondary and postsecondary programs are provided. Fifteen data tables and four figures are included in the report. (CML)

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20th Annual Report

1989



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Adult Education**

Dr. Ferman B. Moody, Acting Director

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PENNSYLVANIA COUNCIL ON VOCATIONAL EDUCATION

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ANDREE P. PHILLIPS
Chair

GLENN A. SCHAEFFER
Vice Chair

THOMAS W. O'BRIEN
Financial Secretary

DENNIS P. RHEN
Executive Director



Dear Fellow Citizen:

On behalf of the Pennsylvania Council on Vocational Education, I am pleased to present the 1989 Annual Report of the State Council. This is the State Council's Twentieth Annual Report.

This report documents the State Council's activities and interests in 1988-89. It contains the recommendations made by the State Council to the State Board of Education and the Governor. The Report also contains data on the status of vocational education in Pennsylvania, and notes some of the trends in vocational education. Finally, the Report contains brief reports on a number of innovative or particularly interesting vocational education programs operating in Pennsylvania.

The Pennsylvania Council on Vocational Education hopes that you will find this Report both informative and useful. If you have any comments concerning the Report, the Council would be most anxious to receive them.

Sincerely,

Andr e P. Phillips
Chair



COMMONWEALTH OF PENNSYLVANIA
OFFICE OF THE GOVERNOR
HARRISBURG

THE GOVERNOR



GREETINGS:

Vocational education is an essential part of secondary and post-secondary schooling in Pennsylvania. In our rapidly changing society, our young people have new demands placed on them as they enter the work force, and new technologies and skills are required.

Through a strengthening of academic standards, and a dedication to continually improving and updating the technical training which they give their students, vocational educators are providing an invaluable service to our Commonwealth. They are looking ahead to the future and helping young men and women prepare for the work force of the 1990s and the 21st century.

Apart from our continued commitment to vocational education in Pennsylvania's secondary schools, we are also eager to see increased access to post-secondary technical training for students who wish to further their education.

By your commitment to training Pennsylvania today, the Council on Vocational Education is planning for a better, more productive tomorrow.

Sincerely,

Robert P. Casey
Robert P. Casey
Governor





COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PA 17126-0333

November 15, 1989



SECRETARY OF EDUCATION

717-787-5820

Dear Citizens:

As we enter the last decade of the 20th Century, attention to the role, functions and outcomes of our nation's educational system is extraordinary. While the Commonwealth's system of basic education has much to commend, the Pennsylvania Department of Education accepts the challenge of adjusting the system to improve outcomes for citizens.

Vocational education is an integral and significant part of the secondary school system, with approximately 150,000 vocational students in our high schools and with most high school students taking at least one vocational course, vocational education fulfills an important need in the educational development of our young citizens.

We expect schools to help students achieve intellectual, social, vocational and personal goals. Vocational education addresses all of these goals. As an educational process, vocational education makes academic work meaningful and goal-oriented. Students find vocational education interesting and relevant to their lives. They are motivated to stay involved in productive and creative experiences.

We need several alternative educational strategies to help students who are bored, frustrated or alienated to acquire basic knowledge and to see how abstract concepts relate to real-world experiences. In this regard, vocational education sets an excellent example for other fields of education to follow.

This letter is my acknowledgement of the effective role that the Pennsylvania Council of Vocational Education plays in promoting excellence within the Commonwealth's educational system. Thank you and keep up the good work.

Sincerely,

Donald M. Carroll, Jr.
Acting Secretary



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF EDUCATION
333 MARKET STREET
HARRISBURG, PA 17126-0333



Dear Citizens:

An individual's occupation is a major cohesive force in the continuity and quality of his or her life. Vocational educators take seriously the mission and challenge of assisting each citizen of the Commonwealth to live better by becoming and remaining economically independent.

In addition, it is the mission of vocational education to help business and industry improve productivity by developing competent workers-- workers who can read, write, do simple math and much more. The abilities to solve problems, organize, verbalize thoughts, work in teams and resolve conflicts are increasingly cited by employers as critical. To carry out its dual mission, vocational education must change and improve in accordance with the changing needs of citizens and employers.

Vocational education programs and services must be planned and developed cooperatively within the total educational system and between vocational education and employers. The consequences of increased cooperation should be increased responsiveness and relevance of vocational education to identified needs. Specifically, we need to expand cooperative planning, improve linkages with business and industry and integrate academic skill development into vocational students' educational programs.

We need to remove structural barriers within the educational system that limit the opportunities for individuals to benefit fully from the opportunities that vocational education provide. Positive steps include administering nondiscriminatory admissions policies, expanding competency-based education, increasing the breadth of programming for populations with special needs and improving the articulation of secondary and postsecondary vocational education programs.

The Pennsylvania Council on Vocational Education continues to work in partnership with the State Board for Vocational Education and the Pennsylvania Department of Education to stimulate improvement of the vocational education delivery system. It is my fervent hope that the spirit of partnership will spread to the far reaches of the Commonwealth. Many people are counting on the success of vocational education and are deserving of our best efforts.

Sincerely,

Jacqueline L. Cullen
Director
Bureau of Vocational and Adult Education

JLC/KS/D5099

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THE PENNSYLVANIA COUNCIL ON VOCATIONAL EDUCATION

The Pennsylvania Council on Vocational Education, created by the Carl D. Perkins Vocational Education Act of 1984 (PL 98-524), conducted its fourth full year of activities under the Act in 1988-89. Thirteen individuals, appointed by the Governor, comprised the membership; seven members represented the private sector and six members represented education. Two private sector members represented organized labor. Career guidance and counseling organizations were represented on Council.

The members of the Council in 1988-89 were:

Karl G. Brown (Chairman), Director of Employers Programs, Pennsylvania Farmers' Association, Camp Hill

Glenn A. Schaeffer (Vice-Chairman), Business Manager, Local Union No. 143 IBEW, Harrisburg

Thomas W. O'Brien (Financial Secretary), Director, Center for Vocational Personnel Preparation, Indiana University of Pennsylvania, Indiana

Rosanne S. Blackburn, Instructor, Health Occupations, Upper Bucks AVTS, Sellersville
Richard deLone, DeLone, Kahn and Associates, Philadelphia

Dr. Kenneth Gray, Professor, Vocational School Administration, The Pennsylvania State University, University Park

Valerie Harvey, Owner, Omni Tech Enterprises, Philadelphia

Dr. Marion B.W. Holmes, Executive Director, Career and Vocational Education, School District of Philadelphia, Philadelphia

Dr. Marvin Lazerson, Dean, Graduate School of Education, University of Pennsylvania, Philadelphia

Andr e P. Phillips, President/CEO, Radiant Steel Products Company, Williamsport

Henry F. Plummer, Jr., Training Coordinator, Steamfitters' Local Union 420, Philadelphia

Paul A. Sammartino, Teacher of Vocational Education/Special Education, Pittsburgh School District, Pittsburgh

Robert L. Wernicki, Assistant Vice President, The First National Bank of Pennsylvania, Erie



Karl G. Brown



Glenn A. Schaeffer



Thomas W. O'Brien



Rosanne S. Blackburn



Richard deLone



Dr. Kenneth Gray



Valerie Harvey



Dr. Marion B. W. Holmes



Dr. Marvin Lazerson



Andr e P. Phillips



Henry F. Plummer, Jr.



Paul A. Sammartino



Robert L. Wernicki

Responsibilities

The Carl D. Perkins Vocational Education Act of 1984 (PL 98-524) has given certain responsibilities to the Pennsylvania Council on Vocational Education. These responsibilities are:

- conduct at least one public meeting each year at which the public is given an opportunity to express views concerning the vocational education program of the state.
- meet with the State Board of Education to advise on the State Plan for Vocational Education.
- review and comment on the State Plan prior to its submission to the United States Secretary of Education.
- advise the State Board of Education and make reports to the Governor, the business community and the general public of the state concerning:
 1. policies the state should pursue to strengthen vocational education (with particular attention to programs for the handicapped); and,
 2. initiatives and methods the private sector could undertake to assist in the modernization of vocational education programs.
- analyze and report on the distribution of spending for vocational education in the state.
- analyze and report on the availability of vocational education activities and services within the state.
- furnish consultation to the State Board of Education on the establishment of evaluation criteria for vocational education programs within the state.
- submit recommendations to the State Board on the conduct of vocational education programs conducted in the state which emphasize the use of business concerns and labor organizations.
- assess the distribution of financial assistance furnished under the Vocational Education Act, particularly with the analysis of the distribution of financial assistance between secondary and postsecondary vocational education programs.
- recommend procedures to the State Board to ensure and enhance the participation of the public in the provision of vocational education at the local level within the state, particularly the participation of local employers and local labor organizations.
- report to the State Board on the extent to which special populations are provided with equal access to quality vocational education programs.
- evaluate at least once every two years the vocational education program delivery systems assisted under this Act, and under the Job Training Partnership Act, in terms of their adequacy and effectiveness in achieving the purposes of each of the two Acts.
- make recommendations to the State Board on the adequacy and effectiveness of the coordination that takes place between vocational education and the Job Training Partnership Act.
- advise the Governor, the State Board, the State Job Training Coordinating Council, the Secretary of Education and the Secretary of Labor of these findings and recommendations.
- consult with the State Board on the development of model curricula to address state labor market needs. Technical committees are to develop an inventory of skills that may be used by the State Board to define state-of-the-art model curricula.

The Pennsylvania Council on Vocational Education, through its various activities, has addressed and met each of these responsibilities.

Activities

The members and staff of the Pennsylvania Council on Vocational Education conducted a variety of activities in 1988-89 to fulfill the responsibilities of the Carl D. Perkins Vocational Education Act of 1984. The Council also performed other activities not specifically assigned to it by federal law, but which were performed in the interest of strengthening vocational education in the Commonwealth.

PACVE

- adopted eight recommendations for presentation to the State Board of Education. These recommendations addressed:
 1. integration of academic and vocational education.
 2. clustering.
 3. articulation of secondary and postsecondary vocational education programs.
 4. prevocational and career education.
 5. personnel development.
 6. availability of vocational education.
 7. reimbursement for achievement of vocational education performance standards.
 8. implementation of Council recommendations made in the 1989 Evaluation of Vocational Education Programs and Vocational Education-JTPA Coordination.
- distributed handbooks for local and occupational advisory committees.
- formally presented PACVE's 1987-88 recommendations to the State Board of Education.
- prepared, published and disseminated four issues of PACVE Update, a publication reporting on PACVE activities and matters of interest in vocational education.

- published a brochure identifying Council members and Council responsibilities.
- made presentations to local advisory committees and to educational organizations on vocational education.
- attended Department of Education sponsored workshops on vocational education for special needs populations.
- represented Pennsylvania at national conferences, participating in committee meetings and other activities.
- attended State Job Training Coordinating Council meetings.
- attended Bureau of Vocational and Adult Education staff development meetings.
- represented Council on the newly-formed Agricultural Education Steering Committee.
- represented Council on the Ad Hoc Committee on Clustering.
- attended the Northeast Region conference of the National Association of State Councils on Vocational Education (NASCOVE).
- attended Vocational Administrators of Pennsylvania meetings.
- attended and participated in activities of the National Association of State Councils on Vocational Education and the American Vocational Association.

- selected a recipient of the Local Advisory Committee Award of Excellence.
- established an Occupational Advisory Committee Recognition Program.
- nominated the Local Advisory Committee Award of Excellence recipient for a Vocational Instructional Program (VIP) Award on the national level.
- represented Pennsylvania at the American Vocational Association (AVA) National Policy Seminar in Washington, D.C.
- visited members of Pennsylvania's Congressional delegation in Washington, D.C.
- prepared written comments regarding the State Plan for Vocational Education for submission to the Bureau of Vocational and Adult Education.
- presented workshops at the Pennsylvania Vocational Education Conference.
- maintained liaison with various educational, governmental, labor and business organizations.
- conducted research and evaluation of the vocational education delivery system in Pennsylvania and the coordination between vocational education and the Job Training Partnership Act (JTPA).
- published and disseminated the findings of the evaluation of the vocational education delivery system and vocational education-JTPA coordination.

Recommendations to the State Board of Education

The Pennsylvania Council on Vocational Education adopted eight recommendations on vocational education at its June, 1989 meeting in Lancaster. The Carl D. Perkins Vocational Education Act (PL94-482) requires State councils to advise the State Board on policies the State should pursue to strengthen vocational education in the State.

The recommendations were formally presented to the State Board of Education in September, 1989, and were also sent to the Governor, the Pennsylvania General Assembly, and other policymakers. The recommendations were also published in the Council's newsletter, PACVE Update.

The Council based its recommendations on Council members' expertise, staff research, consultations with policymakers and other informed persons, and on comments made by the public at meetings of the Council.

The State Board of Education informed the State Council that it will formally respond to the recommendations of the Council.

Recommendation I—Integration of Academic and Vocational Education

The Pennsylvania Council on Vocational Education recognizes that mastery of basic academic skills is increasingly essential to successful job performance and career awareness. PACVE recognizes that there is a need to enhance the academic skills of vocational education students. Therefore, the Pennsylvania Department of Education is urged to promote closer coordination between academic and vocational instruction. The combined emphasis is needed to assure that all students have an opportunity to enter the work force or continue their education upon the completion of high school.

As one means of implementing this process, the Council urges the Department of Education, in its dissemination of federal vocational education funds for research, personnel development and curriculum development, to support efforts promoting coordination. The Council also encourages the Department of Education to employ, in its criteria for program approval and exemplary programs, requirements that there be, at a minimum, consultation between vocational education instructors and academic instructors. The Council also urges the Department of Education to support the development and dissemination of models which integrate vocational and academic skills instruction.

The Council is pleased to note that the State Board of Education, with the assistance of the Department of

Education, will undertake its review of Regulations on Testing (Chapter 3), Curriculum (Chapter 5) and Vocational Education (Chapter 6) concurrently. This concurrent review should assist in the effort to coordinate academic and vocational education programming.

It is the Council's position that nonvocational students can benefit from participation in vocational education programs. Vocational students should continue to have priority access to vocational education programs, facilities and services. However, the pedagogical approach used in vocational education, with its demonstration and application of concepts in "real life" circumstances, can assist many nonvocational students to learn abstract principles.

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education encourage, through its regulations, and the Department of Education support, through its policies and allocation of federal funds, efforts to integrate academic and vocational education.

Recommendation II—Clustering

The Council believes that vocational education programs should be developed in a way that permits students to either train in-depth for a specific occupation or more broadly for a variety of occupations. In some situations, where local conditions warrant, specialization in job-specific skill development is appropriate. In other circumstances, Council believes it may be appropriate for secondary vocational education students to obtain a variety of skills which are appropriate to a broad occupational category.

The economy is changing, sometimes rapidly, thus making it difficult to predict with certainty the nature of jobs that will be available in the future. In some circumstances, emphasis on a narrow job specialty may not enhance either the short-term or long-term employment prospects of youths.

The existing regulatory system, including the certification of teachers and approval of programs, favors job-specific skill development. Local education agencies should be permitted greater flexibility in designing vocational education programs, while continuing to insist that all vocational education programs retain their focus on the development of skills for employment and the enhancement of basic academic skills.

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Department of Education emphasize the development of a variety of related occupational skills and de-emphasize the acquisition of narrow occupational skills at the secondary level of vocational education programs.

Recommendation III—Articulation of Secondary and Postsecondary Vocational Education Programs

The Council believes that a need exists on a regional basis to provide for the smooth transition of students between vocational education programs at the secondary and postsecondary levels. Students should be able to progress through a program which provides increasingly sophisticated training experiences and which utilizes appropriate equipment, tools and materials.

The Council believes that there is a need to expand cooperative arrangements between secondary and postsecondary vocational education institutions. This expansion would enhance services provided to a region's citizens, thus also assisting the economic health of the region. Such arrangements are needed to expand offerings at the secondary and postsecondary levels by increasing the extent of utilization of existing facilities, equipment, tools and other instructional materials, and personnel.

The State Board should retain in its regulations and the Department of Education should enforce provisions in the Regulations and Standards (Chapters 6 and 42) requiring articulation between secondary and postsecondary programs.

These actions are needed to help put an end to stop and go programming, where there is a minimum of coordination and thus a large potential for students to unnecessarily repeat certain portions of their vocational/occupational education experience. These actions are also needed to encourage institutions within a region to share resources, both physical and human, to provide needed vocational education programs.

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Pennsylvania Department of Education encourage the development of cooperative arrangements (including 2 + 2 programs) between secondary and postsecondary vocational education institutions, and among secondary vocational education programs and institutions.

Recommendation IV—Prevocational/Career Education

The Council believes that there is a need for Pennsylvania to revise the vocational education program, at the secondary school level, to provide for a well-designed continuum of courses, leading from a broad and general introduction to courses with greater depth and specificity in particular occupational preparation programs.

The Council believes that existing technology education/industrial arts and home economics programs should be reviewed and revised, as needed, to become integral parts of the vocational education process. The revamped technology education/industrial arts and home economics programs should be required courses for all students at the junior high/middle school levels.

The Council also believes that there should be, either through the establishment of a new course or through infusion into existing courses, at the ninth or tenth grade level, and required for all students, instruction introducing students to the "world of work." Such a course should include units of instruction in career education and personal financial management.

The Council believes that there should be offered, on an elective basis, exploratory vocational education courses. These courses could be offered within sets of related occupations or to all of the programs in vocational education. These courses would focus on exploring occupational areas in which the student may have an interest in pursuing a vocation, but would not commit students to a specific job training program.

The Council believes that the process should be concluded at the secondary level by job-specific occupational training for one or two years. Included in job-specific preparatory programs should be an opportunity for on-the-job training as is provided in cooperative vocational education programs, but which may be provided through other means as well. These upper level secondary programs should be articulated with postsecondary vocational education programs (See Recommendation 3).

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Department of Education provide, through their regulatory, policy and administrative processes, for a continuum of prevocational, career and vocational education programming for all students at the elementary and secondary levels in Pennsylvania.

Recommendation V—Personnel Development

The Council believes that a need exists for a comprehensive review of the vocational education personnel development system. This review should examine pre-service and in-service training opportunities for teachers, the adequacy of instruction for prospective and experienced teachers and administrators, certification requirements, and the delivery of services by existing vocational education personnel development facilities.

Upon the completion of such a review, appropriate steps should be taken to strengthen the vocational education personnel development system to enable it to provide needed programs and services. Particular emphasis should be placed on assuring the availability of personnel development services in all parts of the State.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Department of Education that a comprehensive review of the vocational education personnel development system be conducted. Changes in the personnel development system that are found necessary should be implemented by the Department of Education.

Recommendation VI—Availability of Vocational Education

The Pennsylvania Council on Vocational Education is concerned about the lack of comprehensive vocational education programs in some parts of the Commonwealth. In certain, mostly rural, areas of the Commonwealth, secondary school students do not have access to comprehensive vocational education programming, either at their own high schools or at an area vocational-technical school. At the postsecondary level, the Pennsylvania Department of Education estimates that approximately 40 percent of the Commonwealth's population does not have access to comprehensive postsecondary vocational education programs such as those that are offered at community colleges.

The Department of Education should take steps to address these deficiencies. Comprehensive vocational education is needed in all parts of the Commonwealth, to serve not only the needs of individuals for occupational preparation, but to foster the economic development of the Commonwealth as well. As the economy of the United States develops, those areas not having appropriate employment training facilities and programs will find it increasingly difficult to compete in various industries and businesses.

The Commonwealth could assist certain areas which find it difficult to support vocational education by revising the manner in which it distributes its vocational education funds. The Commonwealth is required, by federal law, to spend more than 50 percent of its federal vocational education funds in "economically depressed" areas of the Commonwealth. However, the Commonwealth's decision to identify "most economically depressed" by the number of individuals unemployed or with an income below the poverty line, rather than the rate of unemployment or proportion of the population with an income below the poverty line, in effect discriminates against counties with sparse populations. The result of this policy has been that the parts of the Commonwealth which are in reality economically depressed have not benefitted from the federal legislation to the extent intended.

The Department of Education and the State Board of Education should also adopt regulations and standards for the operation of technical institutes. Until regulations and standards are adopted, it will not be possible to establish and operate such institutions. Technical institutes would be especially useful in assisting nonmetropolitan areas of the State to meet their postsecondary vocational training needs by utilizing existing vocational education facilities.

The State should continue to expand and strengthen vocational education programs at community colleges. This process should include assuring community colleges that they will receive a fair proportion of available federal vocational education funds, and that state funds are made available at a level which assures that program offerings keep pace with changes occurring in the economy.

Increased support should also be made available for adult vocational education programs offered at area vocational-technical schools and comprehensive high schools. To assure and expand the availability of such programs, the Pennsylvania Council on Vocational Education urges that State financial support for adult vocational education programs be increased to 80 percent of \$17.00 (from \$4.00) per instructional hour. (The cost of adult vocational education programs was approximately \$17.00 per instructional hour in 1987-88.)

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Pennsylvania Department of Education expand the availability of comprehensive vocational education programs to all areas of the Commonwealth.

Recommendation VII—Reimbursement for Achievement of Vocational Education Performance Standards

Reimbursement for vocational education programs is based largely on the amount of time spent in a program. At the secondary level only programs offered for a certain minimum number of hours are eligible for the state vocational education reimbursement and federal vocational education funds. Postsecondary programs are funded at one-third of the cost of programs, "capped" at a certain level, plus an additional stipend if the program is a "statewide" program or an "advanced technology" program. At the adult level, state funds support programs on a "per hour of instruction" basis.

Council believes that vocational education programs should be offered incentive funding based on the skills acquired in the program and other measures of achievement. The acquisition of skills should be ascertained by periodic pre- and post-testing conducted by independent evaluators. Council believes that the utilization of such a procedure complies with the spirit of existing regulations governing vocational education which mandate that competency-based instruction be used in approved vocational education programs.

The Council suggests further that other measures of performance serve as incentives for funding, in part, of vocational education programs. Performance outcomes that could be utilized in such a process include, but are not limited to:

- a. problem-solving competencies;
- b. application of mathematics and English competencies;
- c. understanding the world of work;
- d. occupational competencies; and
- e. employment rate, continuation of education in a postsecondary institution, or enlistment in the armed services.

Therefore,

The Pennsylvania Council on Vocational Education recommends to the State Board of Education and the Pennsylvania Department of Education that reimbursement for vocational education programs be based, at least in part, on students' acquisition of occupational competencies and on the achievement of other performance standards.

Recommendation VIII—Strengthening Vocational Education

The Council is required, biennially, to conduct an evaluation of vocational education programs in the State and vocational education-JTPA coordination. As a result of this evaluation, the Council made, in March, 1989, a number of recommendations on matters related to the implementation of the Carl D. Perkins Vocational Education Act. The Council requests that a response be made to the recommendations adopted by the Council in the Evaluation.

The recommendations made by the Council in its Evaluation focused on several major concerns. These were:

- a. distribution of federal vocational education funds;
- b. research and evaluation; and
- c. increasing access to vocational education programs.

Therefore,

The Pennsylvania Council on Vocational Education recommends that the State Board of Education and the Department of Education implement actions recommended by the Council in its 1989 evaluation of vocational education programs and vocational education-Job Training Partnership Act (JTPA) coordination.

On-Site Compliance Review for Vocational Education

In September, 1986, revised Chapter 339 Standards for the Vocational Education Regulations (Chapter 6) of the State Board of Education became effective. These changes affected the manner in which vocational programs are operated and evaluated in the Commonwealth.

For the on-site compliance review, team members used a checklist to record noncompliance and compliance with requirements. These requirements, the *U.S. Office for Civil Rights (OCR) Guidelines for Vocational Education Programs*, as well as the Chapter 339 Standards to Vocational Education Regulations, were explained to administrators at a statewide in-service prior to the start of the 1988-89 school year.

During the 1988-89 school year, one school district and five area vocational-technical schools (AVTSs) were selected for on-site compliance reviews. Following the review process, each school developed a plan of remedy for noncompliance.

Since the 1986-87 academic year, changes in the review items for Chapter 6 and/or Civil Rights have been made each year. In 1988-89, Chapter 6 had 67 items for review, OCR had 68 items and there was a separate annual safety inspection for approved secondary vocational programs. Hence, it is difficult to make comparisons with the findings from previous years. Conclusions should not be drawn without an in-depth analysis of various institutional reports.

Summary of Findings

One school district was selected for an on-site evaluation in 1988-89. In May, 1989, four district high schools were visited for compliance with Chapter 6 Regulations, and five schools were visited by Civil Rights personnel. The Civil Rights review was limited to the Guidance Services. The District had prior on-site visits that covered all other areas.

The schools had ten different Chapter 6 noncompliance items and one special notation for the four high schools evaluated. Several schools were cited for the same item. One-half or more of the schools were cited for not being in compliance with the following items:

- Programs operated as shown in Department of Education approval.
- Promotional materials convey philosophy of equal access.
- Competency-based plan/course managed by the teacher.
- Teacher had valid certification for his or her assigned positions.

The school district had two different Civil Rights noncompliance items for the high schools evaluated. They were:

- Is financial assistance awarded without regard to race, color, national origin, sex or handicap?
- Are financial assistance materials free from leading applicants to believe the assistance is provided on a discriminatory basis?

Area Vocational-Technical Schools:

No AVTS received on-site Chapter 6 evaluations in 1988-89. Five AVTSs did receive Civil Rights on-site evaluations with a compliance checklist of 68 questions.

All five schools had noncompliance items in Administration. Four had noncompliance items in the areas of Counseling and Equal Opportunity. Two schools had noncompliance items in the area of Access. One-half or more of the AVTSs evaluated for Civil Rights were cited for the following:

Administration

- Is this notice (concerning the names, addresses and telephone numbers of Title IX and Section 504 coordinators) made in catalogs, publications and/or other media that reach potential beneficiaries, students, parents, employees and the general public?
- Is this notice available to persons who are visually impaired?
- Have procedures been adopted and implemented which assure that interested persons, including persons with impaired vision or hearing, can obtain information as to the existence and location of services, activities and facilities that are accessible to and useable by handicapped persons?
- Has the school district or area vocational-technical school adopted and published a grievance procedure which provides for prompt and equitable resolutions of students' and employees' grievances related to Title IX?

Counseling

- Is financial assistance such as loans, grants, scholarships, special funds, subsidies, compensation for work, awards or prizes awarded without regard to race, color, national origin, sex or handicap?
- Are language and examples contained in financial assistance materials free from leading applicants to believe the assistance is provided on a discriminatory basis?

Source: *On-Site Compliance Review for Vocational Education-A Summary of Findings for the 1988-89 School Year*, Pennsylvania Department of Education, Bureau of Vocational and Adult Education.

Vocational Program Highlights

The Pennsylvania Council on Vocational Education is pleased to present in this section information on noteworthy vocational education programs in Pennsylvania. PACVE believes that these programs represent the broad range of activities, services and projects offered in Pennsylvania's vocational education system.

Taken together, these programs provide examples of innovative instruction in advanced technology, assistance to "at-risk" youths and adults, programs for persons with disabilities, cooperative efforts with employers, joint efforts with Private Industry Councils, and coordination between secondary and postsecondary programs.

PACVE commends vocational educators, school administrators, teachers, educational support personnel, Job Training Partnership Act personnel and their colleagues in the private and public sector who are providing these services and who are working to meet the needs of youths and adults in their communities, and who are responding to the needs of employers for well-educated and skilled employees.



Venango County AVTS Vo-tech Video Presentation

A professional audio-video film entitled "The Future is Now" was developed by the Venango County Area Vocational-Technical School. The film highlights the changes that have occurred since the school opened, as the school progresses to keep pace with changing technology in the work force. It was developed to provide an orientation to the school for potential students, as well as to acquaint business representatives and the general public with the programs the school offers. In addition, a short audiovisual tape of each of the 13 areas of instruction offered at the Venango County AVTS was developed. These tapes are seven to ten minutes in length.

The films are packaged in an attractive wooden display case made by carpentry students at the school and will be distributed to each of the sending schools that

participate in the Venango County AVTS. The films were developed in cooperation with The Samuel Justus Charitable Trust, a film studio, and AVTS students.

Norristown Area School District Business/Industry/School Partnership Program

The Business/Industry/School Partnership Program (BISPP) is an alliance of the business and education sectors of the community in the Norristown Area School District. The partnership includes members of the business community, school district administrators, and school board members. The Partnership Program Board of Directors meets once a month to develop programs to benefit quality education and coordinate programs among business/industry and the school district. Some of the activities of this group include: expanded public relations/outreach, increased interaction among area schools and private sector personnel, pursuit of foundation grants for special projects, and updating and evaluation of workplace job skill requirements.

The BISPP is sponsored by the Greater Valley Forge Chamber of Commerce. Businesses and schools may collaborate through volunteer support, special projects, administrative consulting, field trips and tours, and direct financial support. For the 1988-89 school year, the Partnership addressed objectives that included redesigning curricula to better prepare students for private sector jobs, development of an effective staff development program (teacher effectiveness training), and a new strategy to increase public relations activities for the Norristown Area School District.

Lehigh County AVTS/ Carbon-Lehigh I. U. #21 Alternative Education Program

The combined efforts of the Carbon-Lehigh Intermediate Unit and the Lehigh County Area Vocational-Technical School are serving the needs of Socially and Emotionally Disturbed (SED) students with the Alternative Education Program (AEP).

The Alternative Education Program is offered as a "school within a school" concept to approximately 180 Lehigh County high school students who have not been able to succeed in traditional education programs. Most of the students have been identified as high risk potential dropouts. These students attend the Vocational-Technical school on a full-time basis, receiving academic as well as career/vocational training within the AVTS. Emphasis is placed on activities that remediate problems of self-esteem, disruptive behavior, poor academic achievement and poor attendance.

Candidates for the SED program are referred to the Intermediate Unit through a Multi-Disciplinary Team (MDT) process. When a student's needs are established, a placement recommendation is made. Services are provided for a maximum of 12 students within the AEP. Targeted students are those currently labelled SED who are having problems in traditional programs, or exhibit the need for additional support in order to succeed within the Alternative Education Program.

The SED class is staffed by a full-time certified Special Education teacher and a full-time Instructional Assistant. An Individualized Educational Program (IEP) is developed for each student and includes goals and objectives in the social/emotional/behavioral domain. Students receive a variety of educational and support services. The ultimate goal of the program is to provide opportunities for successful learning experiences to the student, and through careful monitoring and individualized support, to integrate the student into the least restrictive learning environment possible.

Millcreek Township School District Business Education

The Business Education Department of the Millcreek Township School District has developed a comprehensive program to help high school students develop the skills needed for today's office support personnel. Traditional classrooms are used to present basic skills such

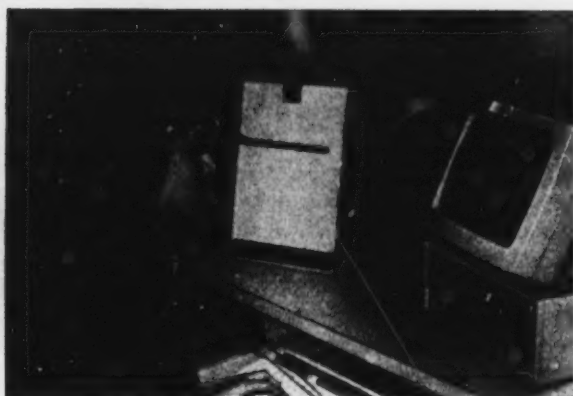
as keyboarding and document formatting, accounting, communications and business mathematics. The capstone courses of word processing and office training are presented in an office-like environment where students sit in double, triple, and quad groups, are separated by space dividers, and function as they would in an office atmosphere.

Each business education classroom is equipped with a computer for each student: the MacPlus for typewriting, business law, business math and computer literacy; Xerox (IBM compatible) for accounting; and Digital Equipment Corporation equipment for COBOL and word processing and office training. The word processing and office training courses are run back-to-back so students have the opportunity to work in a business-like atmosphere for 1½ hours per day.

Students learn to work in cooperation with a supervisor (teacher), co-workers (other students), and the public (school administrators and secretaries). As an internship, students work from 9 to 18 weeks in various school district offices performing the kinds of work done by office support personnel in local businesses. Each student has a telephone and headset on their desk from which they take dictation given by school district administrators. The completed documents are transmitted to the originator by a FAX system.

This course provides work experience on office equipment with the very latest technology, and also helps students identify the importance of atmosphere and worker attitude in office situations. A side benefit of the program is the increase of nontraditional training opportunities as each year more males participate in this program once dominated by females.





SUN Area Technical School The Chamber of Commerce as a SUN Tech Partner

If ever a partnership should be formed, it is between industry and education. The Central Susquehanna Valley Chamber of Commerce and SUN AVTS have formed a partnership that pays dividends for all concerned. Two years ago, the CARES (Concerned About Reduced Enrollment at SUN) Task Force was formed to address the problem of declining enrollment. The committee includes many Chamber members. It has created awareness in the community of programs offered by SUN AVTS.

In March, 1989, the Chamber's Business/Education Committee sponsored an all-day seminar. Approximately 90 business and industry representatives and educators attended. Participants discussed the declining student enrollment and the effect it would have on the availability of a skilled work force. A new marketing strategy was developed which improved the school's visibility in the business community and encouraged employer interaction with the schools to assure access to needed training programs.

Efforts of the partnership have paid off. Enrollment at SUN in 1988-89 was 204. On opening day of the 1989-90 school year, enrollment was 293, as well as 24 daytime adult students. The evening adult program also increased significantly from 540 in 1987-88 to 759 in 1988-89.

Pittsburgh School District Zoological Discovery Center

Students from the career and vocational education program built the school district's Zoological Discovery Center, at the Pittsburgh Zoo. About 30 students began building the structure in mid-June, 1989, and finished in late August, 1989. They planned the center, including the electric and heating systems, under teacher supervision. Science students will use the two-room facility as a zoo classroom and research area. The project was a co-operative effort between Citiparks and the Pittsburgh Public Schools. The students' hourly wage of \$4.35 came from the school board and the Pittsburgh Partnership, which funds such employment programs.

Ligonier Valley School District P. G. & Associates

The Private Industry Council of Westmoreland County and the Ligonier Valley School District were the underwriters of a summer remediation program for 15 "at risk" students. The students were 14 to 15 years old, financially needy, and at least 1.5 grade levels behind in reading and math. The program was designed to apply basic skills with available computer software.

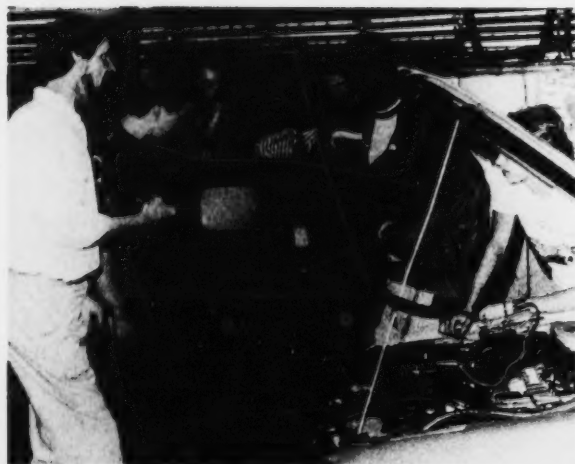
Students earned \$10 a day for attending, with a possible \$50 bonus for consistent attendance and job completion. Therefore, the program was treated as a work situation. The company thus became P. & G. (initials of teacher names) Associates (students). Students came to "work," met in the conference room and completed job assignments in the computer room. The words "school," "classroom," and "teacher" were never used.

The work week was supplemented with field trips and speakers related to career development. Learning activities included a scavenger hunt, designing and decorating a model room, and picking blueberries. Each activity was carefully planned to practice basic reading and math skills. When workers planned a one-day trip, they identified the route with maps, planned stops, and computed mileage, fares, and gas. They wrote a set of directions for someone else to follow.

The final job was writing a company newsletter. Articles written by the associates summarized the work. With one exception, attendance was perfect, and each associate was recommended to receive the bonus.

A. Philip Randolph Skills Center New Standardized Bakery Curriculum

Bakery instructors from the A. Philip Randolph Skills Center recently completed training provided by the American Institute of Baking that will bring new curriculum and certification standards to the Center. The program focuses on standardizing entry-level training for future employees of in-store bakeries and delis. Instruction components included teaching methodology, course content, structure of classes, use of audiovisual materials, hands-on bakery experiences, and educational philosophy. Bakery production technology includes fundamentals of scratch baking, using mixes and bases, using frozen dough and unbaked products, processing fried products and the finishing of quality products. Practical teaching experiences include activities in scoring and product evaluation techniques, as well as merchandising and management practices.



Technical Memorial High School (Erie City AVTS) Curriculum Enhancement

As a result of a survey conducted by a subcommittee of the local Advisory Council, the Erie City School District has introduced a new course into the academic curriculum to enhance the vocational program. The course, "Career Exploration," deals with instilling traits that employers find most desirable in employees. The survey enabled respondents to rank 14 educational/personality traits perceived as being most important to employers when hiring vocational graduates. Vocational education students and teachers, and members of the business community completed the survey.

Results of the survey indicated the following as the most desirable traits in employees: attendance/dependability, positive attitude, self-confidence, problem solving/reasoning, verbal communication, and interpersonal relationships. The new course is being offered as an elective in the Social Studies Department. Sixty students enrolled in the course in the first semester. In the future, it will be offered as a mandatory course for all eleventh grade students.

McKeesport AVTS Seven Summer Jobs

In 1989, for the seventh consecutive summer, McKeesport AVTS provided a program for 100 youths aged 14-15 to explore seven career areas. Participants had a chance to develop job skills and work habits and enhance reading and math skills as they completed activities in auto detailing, crafts, engraving, graphic arts, sewing, wood construction and wood craft shops. At the end of the six week program, they had bookcases, wooden baskets and flowers, personalized keychains, hand-painted T-shirts and other products to show for their efforts. All students received a wage for the 12 hours they spent in each shop area.

Early in the program, Pittsburgh Pirate R. J. Reynolds visited the site to meet and talk with the participants. He stressed the importance of developing good work habits and urged the participants to set goals and strive to accomplish them. He also introduced the perfect attendance program to encourage regular attendance. Those who had perfect attendance during the program received tickets to the August 9, 1989 Pirates-Cardinals game at Three Rivers Stadium.

In 1990, the school district will mark the 50th anniversary of the McKeesport Area Vocational-Technical School with a year-long celebration.



School District of Philadelphia John F. Kennedy Center Student Support Service Programs

Modeled after the Philadelphia High School Academies, Inc. Program, School-Within-A-School, the Burger King Academy (BKA) is a national program designed to aid incoming ninth graders in making a successful transition into senior high school. Ninth grade was targeted because it is the one with the highest failure and dropout rates.

Students have most of their classes in a separate wing of the school and are taught in small groups. The program offers students counseling and programs in study skills, standardized-test preparation, substance abuse, computer literacy, career guidance, self-esteem development, and application of academic skills. A workshop will be held for parents on how to help their children with homework. Funds contributed by Burger King support the program. Eventually, some students will get opportunities to work at a Burger King franchise or at the regional office.

An incentive program is designed to motivate students to attain predetermined school-related goals. A peer mentor project will encourage upper-class students to counsel, monitor, and act as positive role models for BKA students. The school wants absenteeism reduced by 5 percent, failure reduced by 6 percent, and dropout rates reduced by 5 percent among the academy students. The BKA opened on September 7, 1989, at George Washington High School.

Another new program addresses a major concern for teen parents. Teens Improving Parenting Skills (TIPS) allows young mothers the opportunity to return to school, bring their children to on-site day-care facilities, develop skills for entry-level jobs (child care worker, teacher's aide, hospital aide) and learn parenting skills.

The program follows the guideline for instruction as directed in the School District of Philadelphia's Standardized Curriculum Guide (Comprehensive Home Economics—Levels I, II, III, and the Care and Guidance of Children). In addition, students attend their regular academic classes. The toddler program provides learning activities to strengthen toddlers' intellectual, affective, and psychomotor skills. Approximately 50 teen parents and their children are enrolled.

Reading-Muhlenberg AVTS Clothing and Textiles Training for SPOC Participants

A booming local economy and low unemployment have made it difficult to fill job openings in the apparel manufacturing industry in Reading and Berks County. In an effort to utilize untapped human resources, a cooperative training program was launched in the Spring of 1989, with support from local businesses, the Berks County Employment and Training Office (JTPA), and the County Assistance Office (Pennsylvania Department of Public Welfare). An Industrial Sewing Machine Operator course was developed using the Clothing and Textile Program and Reading-Muhlenberg AVTS.

Five adult students from the Single Point of Contact program (SPOC) were integrated into the afternoon day school program and received 72 hours of instruction. Skills learned in this short course make people employable immediately and able to earn a living in a piecework environment. A second class was held during the Summer of 1989 as a full-time program for 15 students. To facilitate attendance, transportation to school and child care arrangements were made through the cooperating agencies.



Pittsburgh Public Schools Public Safety Academy Magnet Program

The Public Safety Academy Magnet Program is a vocational program for students in grades 11 and 12 who are interested in careers as a police officer, firefighter or paramedic. The program provides opportunities to achieve skills needed for immediate employment in the student's chosen career or admission to appropriate postsecondary training programs.

This program is a cooperative effort of the Pittsburgh Public Schools and the City of Pittsburgh Public Safety Department. Students are able to acquire skills and knowledge in a lab setting, interact with professionals within the Public Safety Department, acquire specialized training in the use of appropriate equipment, and participate in practical field experiences.

Students making satisfactory progress in the magnet program during grade 11 have an opportunity to participate in a paid, summer work-experience program in the Public Safety Department as Junior Cadets. Those satisfactorily completing the grade 12 program can apply to the Public Safety Department as a Cadet. The Cadet program is coordinated with the Community College of Allegheny County and the Public Safety Department, with Cadets earning a job-related Associate's Degree which may lead to a position as a Pittsburgh police officer, firefighter, or paramedic.

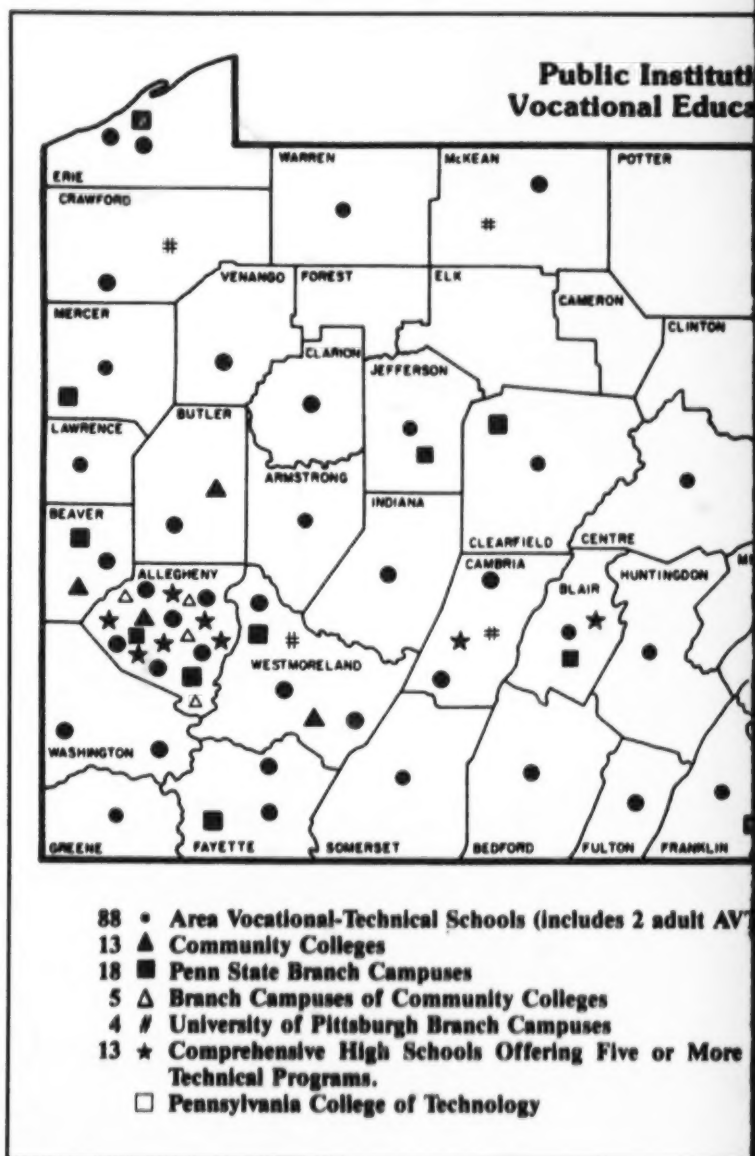
Berks County Cooperative Project STAY

The Conrad Weiser School District designed Project STAY to keep students in school until graduation by using alternative/nontraditional programming and providing monitored support employment experiences to prepare them for successful transition to employment. The program serves students 15 years of age or older who have dropped out of school and want to return to obtain a high school diploma. Students also qualify if they are currently in a traditional high school setting but are at risk to drop out due to chronic truancy, consistent failure of courses or grade level, discipline problems, loss of motivation, or pregnancy or single parenthood.

Student referrals originate from the home school. Each candidate is evaluated by a child study team. An orientation program is required for each student, and if possible, his/her parent. It is the choice of the student if he/she wants to join and the choice of Conrad Weiser's STAY Team if the student will be accepted. The program is voluntary and both parent and student must agree to participate. A 90 percent attendance rate is required to remain in the program.

Students follow a modified school schedule. Academic subjects include reading, English, and mathematics. Job readiness skills are also taught. The student must either attend Berks AVTS or be employed for a minimum of 15 hours per week. An agreement that is standard to Diversified Occupations courses is made with each employer. Visitations to job sites are made by STAY staff and student progress is closely monitored.

Students are placed as one-year, two-year, or three-year students based on their educational history. Conrad Weiser administrators are studying a plan in which one-year students will be able to earn 6.0 credits, two

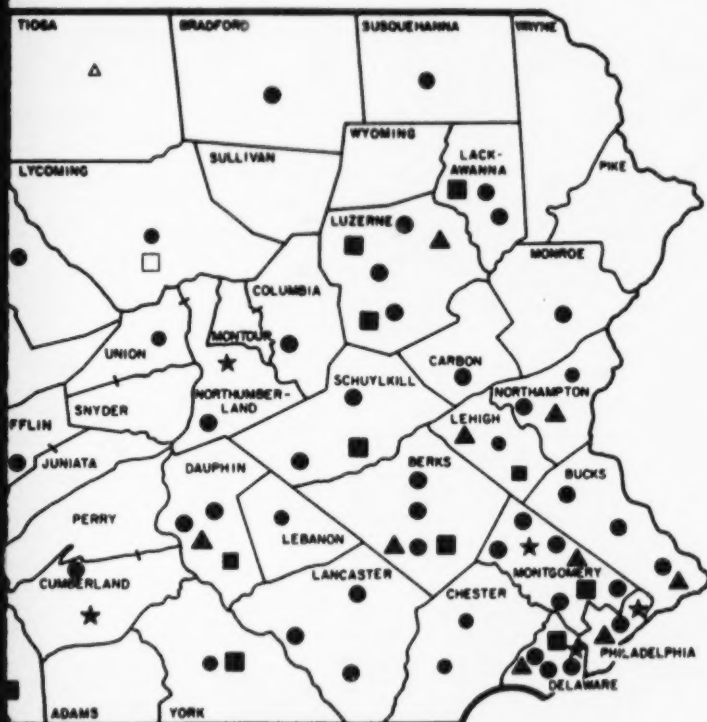


year students 12.0 credits, and three-year students 18.0 credits to graduate. The home school district provides transportation and determines if students will attend its own graduation or that of Conrad Weiser. Bethany Children's Home provides classroom and office space as well as the services of their school psychologist, a car and driver to take students to work, and building maintenance. Bethany has also committed substantial funds to STAY's budget.

Project STAY has given students more confidence so that they can set goals, plan and become productive citizens of the community.



ons Offering tion Programs



Note: There are several AVTS sites in Philadelphia. There are also several comprehensive high schools in Philadelphia and Pittsburgh that offer full vocational programs.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Forbes Road East AVTS

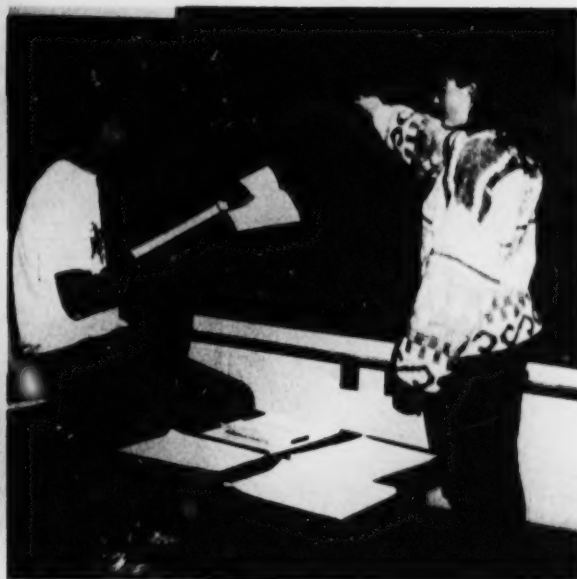
Achieving Sex Equity Through Students

In an effort to overcome stereotyped ideas about career choices, teams of outstanding student leaders and teacher advisors from nine school districts in Eastern Allegheny County recently participated in a leadership training program called ASETS (Achieving Sex Equity Through Students). The ASETS training was sponsored by the Equity Program at Forbes Road East AVTS.

The two-day training took place at Forbes Road East AVTS and involved more than 85 participants. During the workshop the teams and advisors learned about the changing roles for males and females and the effects of sex role stereotyping on occupational choices. They also examined nontraditional career choices and learned how nontraditional courses can help prepare them for the future world of work.

Following the ASETS training, the teams of student leaders made similar career presentations to younger students in their schools with the Equity Program staff serving as support persons. The younger students then attended a one-day Nontraditional Vocational Exploration Program (NVEP) at Forbes Road East AVTS and the Community College of Allegheny County, Boyce Campus. During the NVEP, students received "hands-on" experience in two nontraditional classes, met nontraditional role models, and learned about a wide variety of career opportunities.

During the 1988-89 school year, more than 900 students participated in the NVEP Program and 9800 pupils received the career information presented by the trained student leaders.



Eastern Montgomery County AVTS New Technology Courses in Engineering and Accounting

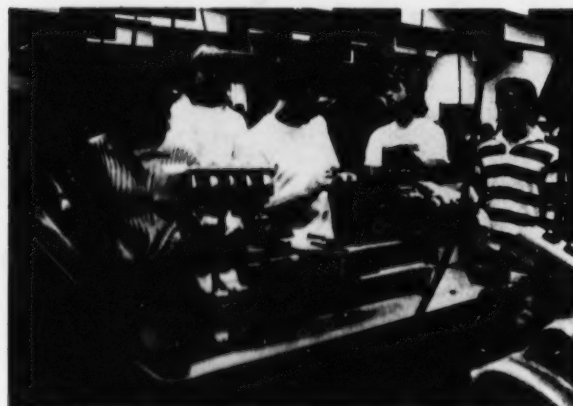
Two new programs offered in the 1989-90 school year at Eastern Montgomery County AVTS offer Penn State college credits to high school seniors interested in Engineering Technology or Computer Science.

Both courses will be taught by Penn State instructors. The engineering course is an inter-disciplinary introduction to engineering methods through manual and computer-assisted technical drawing, laboratory experimentation with report writing and both student and commercially written engineering computer application programs. Students will solve realistic tractable problems used by electrical and mechanical engineers. The computer course includes computer fundamentals, applications to data processing environments and programming techniques from the design and implementation of algorithms to high-level block structured language, parameters and recursion.

For college-bound students, the AVTS offers a new program in advanced accounting. Students will develop skills in automated accounting entry and retrieval using spreadsheet (Lotus 1-2-3) and database (dBase) software on IBM (or compatible) micro computers. Students will perform advanced accounting analysis and preparation of statements, demonstrate a mastery of accounting principles, and become familiar with designing and implementing automated subsystems.

Pennsylvania College of Technology Career Exploration in Nontraditional Occupations

Career Exploration in Nontraditional Occupations (CENO) is a Sex Equity project in operation since 1985. The program assists individuals to explore the benefits of entering career areas that are considered nontraditional for males and females, such as women in electronics, drafting, or carpentry and men in nursing, secretarial science or dental hygiene. CENO provides student support groups, hands-on experiences, in-service programs, and career exploration seminars.



Lehigh County AVTS Vocational Education Integration Program

The purpose of this program is to modify existing approved vocational programs and expand the number of students with disabilities mainstreamed into vocational programs. The program serves all moderately disabled students (between the ages of 14 and 21) who have been referred to Lehigh County AVTS (LCVTS). A number of programs now have modified core competencies including Floriculture/Horticulture/Landscaping, Food Industries, and Material Handling. The modified curriculums contain a career explorations concept. Support staff are available to help students. Each student possesses a transition plan in preparation for competitive community employment.

Westmoreland County Community College

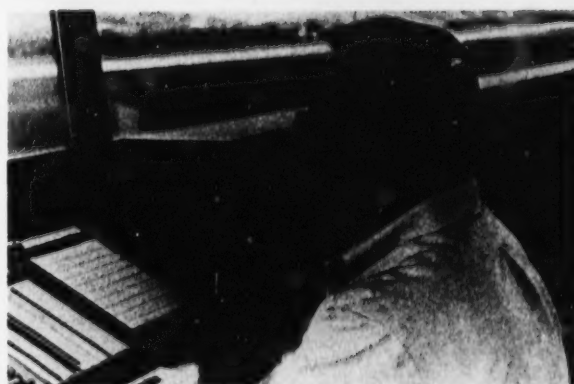
Partnership Programs That Work

The air traffic controller program at Westmoreland County Community College (WCCC) prepares students to take the Federal Aviation Administration examination to become licensed air traffic controllers. This program, offered through a cooperative agreement with Barton ATC (Air Traffic Control), combines classroom instruction with practical experience. During the first year, students cover such topics as navigation, flight theory and weather. The summer is spent working on the ATC simulator located at Westmoreland County Community College. The simulator is a replica of the Latrobe Air Control Tower. In the second year of the program, students combine classroom and on-the-job training at the Latrobe Tower.

The electronics assembler program is a joint effort between WCCC, Carnegie Mellon University, the Ben Franklin Partnership Program and the Private Industry Council's Single Point of Contact (SPOC) Program. It is designed to train public assistance recipients and/or dislocated workers in the skills needed to find employment in the electronics field. This course will utilize artificial intelligence concepts and provide "pick and place," selection, and other skills needed for efficient circuit board construction. Students completing this program will be qualified to work in an electronic assembly occupation.

There are approximately 80 physically handicapped and learning disabled students attending WCCC each year. About 20 participants require assistance, which is provided through the Student Support Services Program. As needed, students receive counseling; academic accommodation, such as a reader, writer and more time for tests; advising; auxiliary aids, including tape recorders, special paper and equipment; tutoring and assessment.

The Single Point of Contact (SPOC) program is a joint effort of the Private Industry Council of Westmoreland/Fayette, Inc., Department of Public Assistance and Job Service to provide services to public assistance recipients with the goal of securing full-time employment. Phase I provides remedial instruction in basic skills and various life skills for a minimum of 10 weeks to a maximum of six months. Phase II provides extended remediation, GED preparation, work experience, classroom training, or job placement. Piloted in 1987, 11 SPOC program participants have enrolled full-time at WCCC in vocationally-specific classroom training.





Carlisle Area School District Golden Anniversary for Vocational Education

On September 2, 1939, the Carlisle Area School District officially opened full-time vocational education programs for secondary students. During this 1989-90 school year, the community of Carlisle is celebrating its Golden Anniversary in Vocational Education.

A 50th Year Celebration Committee planned a program of activities to focus on the successes of vocational education over the years. A recognition dinner was held in October, 1989, to honor two outstanding graduates from each of the 50 years of the program. Dinner guests included local school district and community officials, and highlighted proclamations signed by Governor Casey and the Mayor of Carlisle. Members of the business and industrial communities were also recognized for their contributions to the success of the program.

Articles and stories appeared in the local media. Pamphlets identifying outstanding vocational program graduates and significant events in the history of vocational education are being distributed throughout the area. A traveling display, which includes a brief video showing original 1930's film, is making its way through schools, libraries, malls and trade shows in the area.

Luzerne County Community College

Center for Single Parents and Homemakers

When unexpected changes occur in personal circumstances at home, many single parents and homemakers face an immediate challenge of getting a job and becoming financially secure. Without special preparation,

many homemakers or single parents who look for a job are inexperienced in marketing themselves as competent, skilled individuals. The Center for Single Parents and Homemakers of Luzerne County Community College provides competency-based vocational training, internships, job search assistance and linkages with businesses, industries, and social services in the community.

Becoming employment ready involves more than just learning a job skill. Careful planning focuses on a realistic assessment of each client's skills and aptitudes, an exploration of career options, development of an individual career plan and the acquisition of new vocational skills. Clients also need opportunities to develop a more positive sense of self-worth, competency, and self-identity.

Vocational training programs are provided in a 12-week pre-apprenticeship program or a one-year certificate program. Support services operate on a continuing basis. About 85 percent of the program's participants find employment or enroll in higher education programs. This eliminates economic dependency for many of the Center's clients. In 1984, the Center won the U.S. Department of Education Secretary's Award for Excellence in Vocational Education Programming and is a first place recipient of the Pocono Northeast Community Development Award from the Economic Development Council.

The Center for Single Parent and Homemakers has proven to be beneficial to the community and to local businesses and industries which need responsible, productive employees.





McKeesport AVTS **Metalworker Occupation Program** **(Robotics and Light Manufacturing)**

This two-year course is designed to provide graduates with the skills, knowledge and attitudes necessary for entry-level employment in Metal Occupation careers. All courses integrate safety, leadership, employability skills, mathematics and science instruction wherever applicable. When appropriate, students in their senior year have an opportunity to participate in a supervised work experience with area businesses.

Basic learning experiences taught as a general industrial curriculum include machining, welding, sheet and plate metals. Instruction includes planning, layout, setting up and operating fabricating machines used in the manufacture and assembly of metal products and structures. A variety of metals are cut, twisted, bent, pressed, stamped, fused, marked, aligned, fitted, welded or otherwise worked upon.

Training is also provided in Robotics and Light Manufacturing. The Robotics course includes set-up and programming procedures using a Unimate 1000, Komatsu Tracking Welder, Scorbot III Robots, and Apple IIe and IBM computers. The Light Manufacturing course includes training on a (CNC) Computer Numerically Controlled Milling Machine, lathe operation, and an extensive welding program. The welding uses Oxy-acetylene, Stick, M.I.G. and T.I.G. welding. Students are given the American Welding Society Certification Test during the course.

Erie City School District **(Erie City AVTS)** **Intergenerational Training**

During the 1988-89 school year, the Erie City School District implemented an Intergenerational Training program at Technical Memorial High School (Erie City AVTS). The program was recommended by the local Vocational Education Advisory Council to help satisfy the needs of businesses and industries searching for skilled workers, and to provide education and skill training to unemployed and underemployed adults.

Secondary students are accommodated first. Then, adult applicants are carefully screened before enrolling in the class. The first semester pilot program was such a success that the Private Industry Council funded a JTPA project paying the tuition of ten students during the second semester. Follow-up information on adult program completers indicates the program is very successful. Adults are able to obtain better jobs or advance in a current job and receive substantial wage increases, which in turn means greater economic stability for them and their families.

Midwestern Intermediate Unit IV **Teen Pregnancy and Parenting Program**

Midwestern Intermediate Unit IV operates a Teen Pregnancy and Parenting Program in Butler, Lawrence and Mercer Counties. In its fourth year, the project has increased the number of students served from 36 the first year (1985-86) to 84 students during the 1988-89 school year. Each school has assisted the program with identifying and accessing the students. A variety of support services is provided, including personal and career counseling, day-care and transportation, health education and monitoring, parenting skills development, and community agency referral.

The school staff and project coordinator work as a unit to ensure the school is responsive to the students needs. Coordinators meet regularly with vocational instructors, counselors, nurses, administrators and work experience coordinators. As the student is assisted in navigating through a myriad of decisions and issues, he/she is encouraged to concentrate on skills training and to set long-term career goals. The student is also given assistance in exploring possible postsecondary training programs.

In each successive year, the Teen Parenting Program has undergone substantial growth and change. Improvements toward integrating the program into the schools has rewarded the communities with successful students and graduated teen parents prepared to meet the challenges before them.

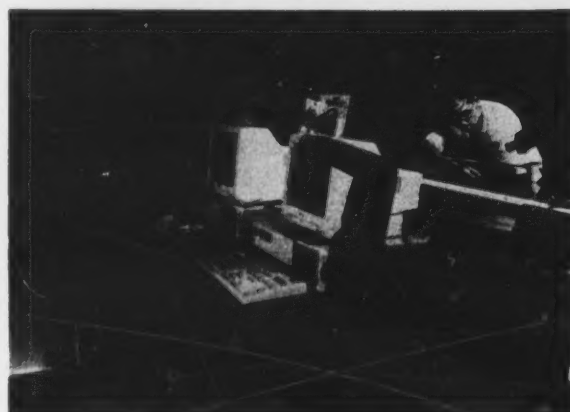
Harrisburg Area Community College (HACC)

Articulated Programs Expand Student Options

Area Vocational-Technical Schools (AVTSs) throughout south-central Pennsylvania are entering partnerships with Harrisburg Area Community College (HACC) to benefit students, professionals teaching in the programs and future employers in the community. Articulated programs bring teachers from the secondary and college level together to analyze existing programs, plan curriculum, and identify appropriate outcome measures and performance standards.

Students in the HACC/AVTS articulated programs make field trips to the community college campus for special demonstration sessions. Faculty from HACC are invited to visit AVTS classes and present guest lectures. An essential element of the articulation process is joint meetings among faculty, administrators, and counselors from the home schools, area vocational-technical schools, and the Harrisburg Area Community College. In addition to promoting the articulated programs specifically, this reinforces with the counselors the fact that AVTS students have options to continue their education.

Harrisburg Area Community College has teamed up with Dauphin County Technical School and Harrisburg-Steelton-Highspire Technical School to provide welfare-to-work training. HACC has a Joint Jobs Initiative program for the Transitionally Needy (TN). Clients receive career counseling, work force literacy and basic skills study, and job training. HACC provides the basic program on campus. For technical training in job skills, clients may select a program at HACC or at one of the AVTSs. Training at the AVTS is based on a contracted section of the competencies in a program.



Berks Vocational-Technical School

Electromechanical Technology Program

In 1986, the Berks Vocational-Technical School received federal funding to create a "state-of-the-art" electromechanical training facility for the Electromechanical Technology Program. The program is designed to train people to operate, maintain and repair machinery and systems used in the manufacturing environment. Areas of study include pneumatics, hydraulics, industrial motor controls, digital electronics, microprocessors and the fundamentals of robotics. Some programs involve entry-level training for employees with little or no experience. Other programs are designed for veteran employees who need training in newer technologies.

The first class was exclusively for adults, including dislocated workers sponsored by the Job Training Partnership Act (JTPA). However, the 1989-90 school year is the first in which the program will include a mixture of adults and secondary students. The class has proven to be a tremendous community resource. Local manufacturers have requested use of the facility, curriculum, and the AVTS instructor to train existing employees.

Attempts are made to make training available when the employee most needs it. Specialized evening or summer classes can be scheduled, and employees can be integrated with full-time students in regular daytime programs. Some on-site plant training has been conducted. The competency-based curriculum adds to the success of this program as the sponsoring company may select segments of the curriculum and tailor instruction to meet its specific needs.

Status of Vocational Education in Pennsylvania

The following pages present a statistical summary of the status of vocational education in Pennsylvania. The tables and figures include data on vocational student enrollments, special populations, placement of completers, and earnings of employed graduates. Information is also presented on the Customized Job Training (CJT) program and the Governor's Special Grant for Education (8% Funds) of the Job Training Partnership Act (JTPA).

Vocational Program Offerings

In Pennsylvania, vocational education classes are offered in secondary, postsecondary and adult programs. The following table identifies the number of programs offered at the various types of institutions.

TABLE I: Public Vocational Education Institutions and Programs in Pennsylvania, 1987-88.

Type of Institution by Level	Number of Institutions Providing Vocational Education	Number of Programs Offered
TOTAL	774*	6,759
Secondary	667	3,978**
AVTS	85	1,567
High School	562	2,354
Intermediate Unit	13	25
Correctional Institution	7	32
Postsecondary	92	979
State University	9	19
State-Related Commonwealth University	24	163
Community College	14	555
Private State-Aided Institution	5	19
Private College and University	31	128
Private Junior College	9	95
Adult	214	1,802
AVTS	73	1,261
High School	124	439
Correctional Institution	11	77
Intermediate Unit	6	25

*Unduplicated.

**Includes 110 programs not approved under state regulations and standards for vocational education.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Decline of Secondary Student Enrollments Continues

The 1988-89 school year marked the fifth year in a row that vocational education enrollments as a percentage of the total public secondary school enrollment (grades 10-12) declined. From a high of 47.1 percent in 1982-83, the proportion of all students enrolled in vocational education programs, including Consumer and Homemaking Education, dropped to 33.6 percent in 1988-89.

TABLE II: Percent of Pennsylvania High School Students Enrolled in Vocational Education, 1979-89.

Year	All Students Grades 10-12	Occupational Vocational Education Enrollments*		Total Vocational Education Enrollments**	
	N	N	% of Total	N	% of Total
1979-80	507,133	178,981	35.3	234,637	46.3
1980-81	493,067	178,646	36.2	229,726	46.6
1981-82	478,719	175,120	36.6	224,812	47.0
1982-83	459,552	167,614	36.5	216,607	47.1
1983-84	438,066	163,645	37.4	206,261	47.1
1984-85	424,201	152,533	36.0	191,698	45.2
1985-86	412,467	139,489	33.8	173,707	42.1
1986-87	411,976	126,575	30.7	162,063	39.3
1987-88	407,064	113,876	28.0	149,266	36.7
1988-89	396,138	103,266	26.1	132,987	33.6

Note: Vocational education enrollments include approved programs only.

*Does not include Consumer and Homemaking Education or Industrial Arts Education.

**Includes Consumer and Homemaking Education and Industrial Arts Education.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Enrollments Continue to Decline

All occupational areas of secondary vocational education experienced a decline in enrollment in 1987-88. The Trade and Industrial Education and Not Elsewhere Classified categories showed significantly less of a decline than all other program areas. The overall decline for all occupational programs was 10 percent, an increase of 3 percent over 1986-87. A very large decline in Consumer and Homemaking Education, however, is somewhat offset by the inclusion of Industrial Arts Education enrollments.

TABLE III: Secondary Vocational Education Enrollments in Pennsylvania, 1979-88.

Program	1979	1981	1983	1985	1987	1988	% Change 1987-88
Agriculture Education	15,637	13,825	12,728	11,122	9,443	8,445	-11%
Marketing & Distributive Ed.	10,853	9,694	8,856	7,071	5,809	5,202	-10%
Health Occupations	5,317	5,151	4,866	5,081	4,210	3,593	-15%
Occupational Home Economics	7,538	7,637	10,032 *	9,002	7,502	6,613	-12%
Business Education	64,811	61,110	61,146	50,322	39,966	35,640	-11%
Technical Education	10,290	9,708	8,827	7,766	—	—	—
Trade and Industrial Ed.	76,540	76,708	59,859 *	51,803	50,822 *	48,330	- 5%
Not Elsewhere Classified	1,833	4,986	12,200	10,983	5,476	5,245	- 4%
SUBTOTAL	192,819	188,829	178,514	153,993	123,228	113,068	-10%
Consumer and Homemaking Ed.	68,543	63,020	54,728	44,846	45,306	37,439	-17%
Industrial Arts Education	—	—	—	—	—	600	—
SUBTOTAL	68,543	63,020	54,728	44,846	45,307	38,039	-16%
GRAND TOTAL	261,362	251,849	233,242	197,996	168,535	151,107	- 10%

*Changes due in part to alterations in student accounting methods.

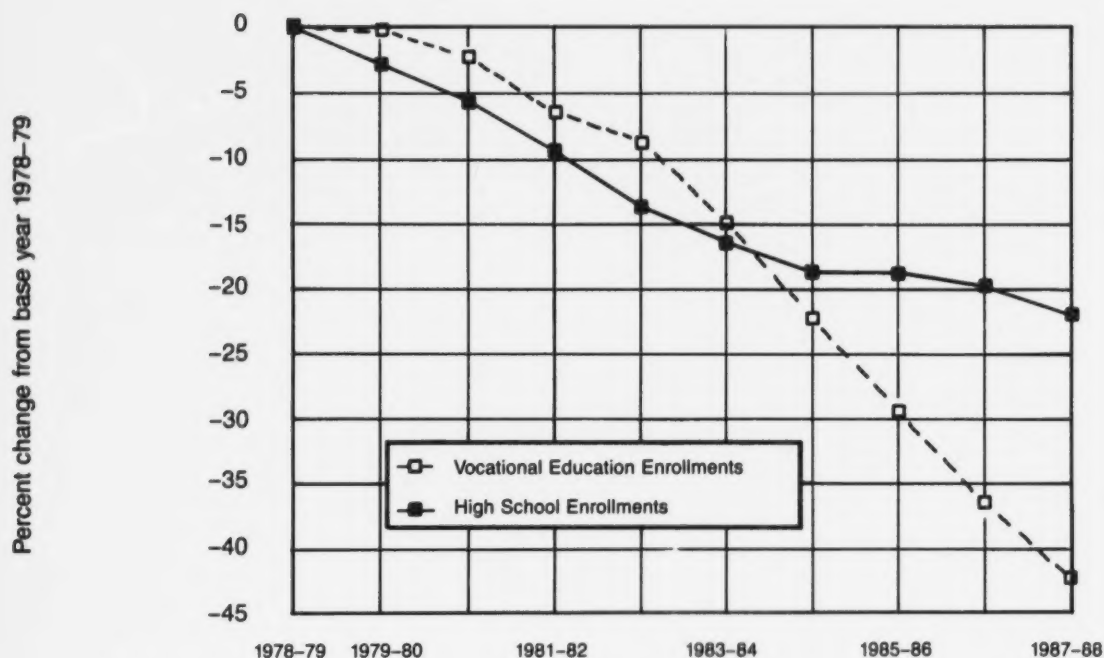
Note: Technical Education enrollments have been combined with Trade and Industrial Education enrollments since 1987-88. The Pennsylvania Department of Education began approving programs in Industrial Arts Education in 1987-88.

Source: *Vocational Education Secondary Program Statistics, 1987-88*. Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Vocational Education Enrollments Have Declined More Rapidly Than Total High School Enrollments

Secondary public school enrollments have been declining at a steady pace over the last five years. Vocational education secondary programs have also declined in enrollments, but at almost double the rate of the public school's enrollment decline.

FIGURE I: Secondary Vocational Education and Total High School Enrollments, Percent Annual Change, 1979-88.

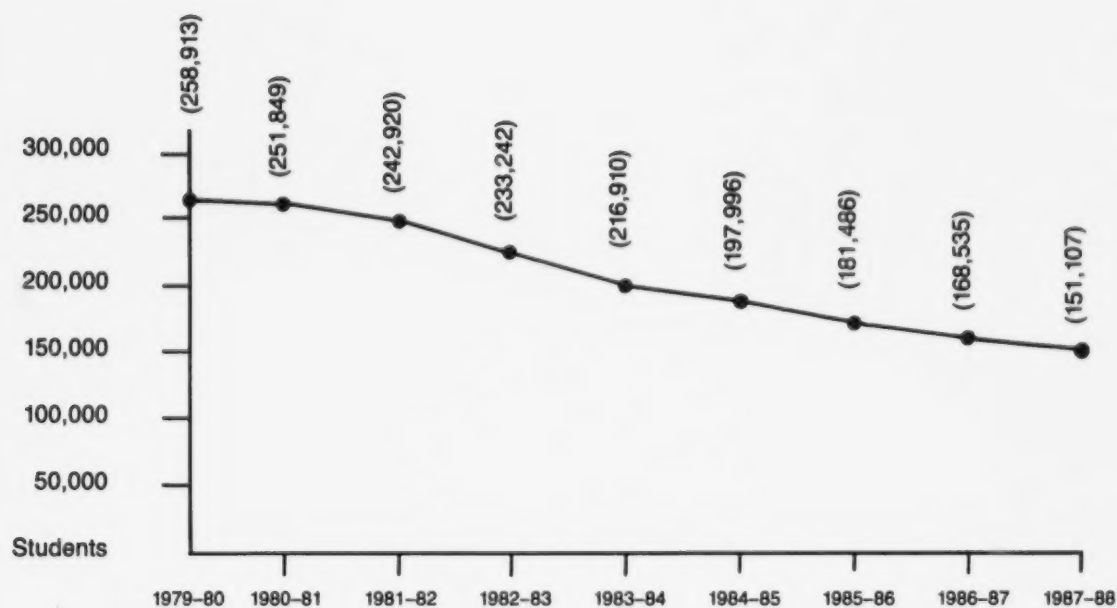


Source: *Vocational Education Secondary Program Statistics, 1987-88*. Pennsylvania Department of Education.

Secondary Vocational Education Enrollments Have Declined Steadily

All secondary student enrollments are steadily decreasing, due in part to an overall student population decline. However, vocational education student enrollments are decreasing at a greater rate over the same period of time.

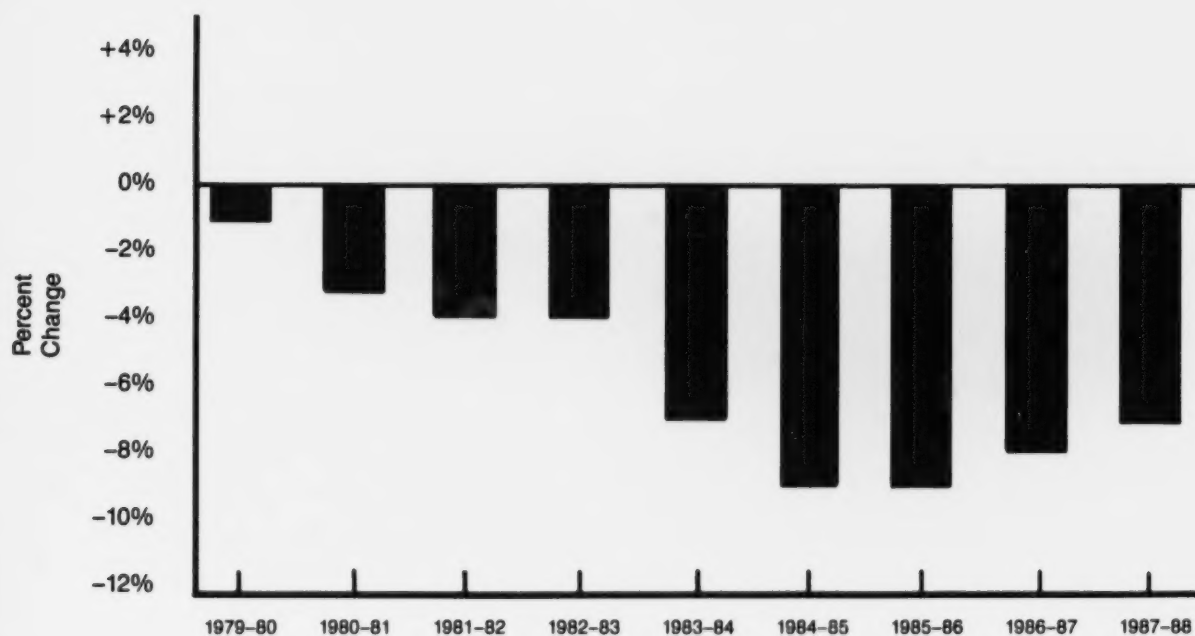
FIGURE II: Secondary Vocational Education Enrollments, 1980-88.



Percentage of Decline in Secondary Vocational Education Enrollments Stabilizes

As secondary vocational enrollments decline each year, the annual percentage of decline shows especially large declines between 1983-84 and 1984-85 years, and 1987-88 school years.

FIGURE III: Secondary Vocational Education Enrollments, Annual Percent Decline, 1980-88.



Some Special Population Enrollments Decline

The trend for declining enrollments of some special populations continued in 1987-88. This corresponded with an overall reduction in vocational enrollments for the year.

TABLE IV: Enrollments of Special Populations, All Levels, 1981-88.

Population	1981-82	1982-83	1983-84	1984-85	1985-86	1986-87	1987-88
Female	214,050	211,668	198,819	189,958	185,952	176,208	147,806
Minority	52,298	52,565	52,215	52,685	47,632	46,311	40,685
Disadvantaged	54,447	63,906	70,544	77,799	70,219	60,627	58,318
Handicapped	18,021	19,992	20,027	21,322	18,618	17,480	17,455

Note: Postsecondary enrollment figures for disadvantaged and handicapped students includes only those students provided with services supported by federal vocational education funds.

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Adult Enrollments Decrease in 1987-88

Adult vocational education enrollments decreased 9 percent in 1987-88. This followed enrollment increases in the 1985-86 and 1986-87 school years.

TABLE V: Adult Vocational Education Enrollments in Pennsylvania, 1984-88.

Program	1984	1985	1986	1987	1988	% Change 1987-88
Agriculture Education	4,758	4,841	4,619	5,035	5,033	0%
Business Education	22,157	18,771	26,096	24,330	18,739	-23%
Health Occupations Education	7,413	5,512	6,643	5,303	4,721	-11%
Marketing & Distributing Education	426	950	880	929	535	-42%
Occupational Home Economics Education	2,902	3,165	2,839	3,061	2,974	-3%
Technical Education	3,721	3,847	4,217	—	—	—
Trade & Industrial Education	29,902	33,326	32,962	40,799	40,042	-2%
Not Elsewhere Classified	323	369	423	366	239	-34%
SUBTOTAL	71,602	70,781	78,679	79,823	72,283	-9%
Consumer & Homemaking Education	2,492	2,334	1,702	1,510	1,765	+17%
GRAND TOTAL	81,818	73,936	80,381	81,333	74,048	-9%

Note: Technical Education and Trade and Industrial Education combined since 1986-87.

Source: *VEMIS Adult Education Enrollments and Completers in Secondary Schools, Pennsylvania Student Profile, 1987-88.* Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Vocational Enrollments Fluctuate by Level

While enrollments in secondary vocational education programs continue to decline, enrollments for postsecondary and adult programs fluctuate from year to year.

TABLE VI: Vocational Program Enrollments—All Levels.

Level	1979-80	1984-85	1987-88
Secondary	258,913	197,996	151,107
Postsecondary	68,139	93,133	56,570
Adult	94,359	72,963	77,067
TOTAL	421,411	364,092	284,744

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Vocational Education Serves Large Number of Special Population Students

Although secondary enrollments continue to decline, special populations continue to participate in vocational education. Adult enrollments show a smaller percentage of special populations participating.

TABLE VII: Secondary and Adult Special Populations, 1987-88.

Level/Program	Enrollments	% of Total
Secondary		
Female	81,953	54.2%
Minority	26,413	17.5%
Disadvantaged*	45,926	30.4%
Handicapped*	15,755	10.4%
Adult		
Female	32,063	41.6%
Minority	7,569	9.8%
Disadvantaged*	4,394	5.7%
Handicapped*	383	.5%

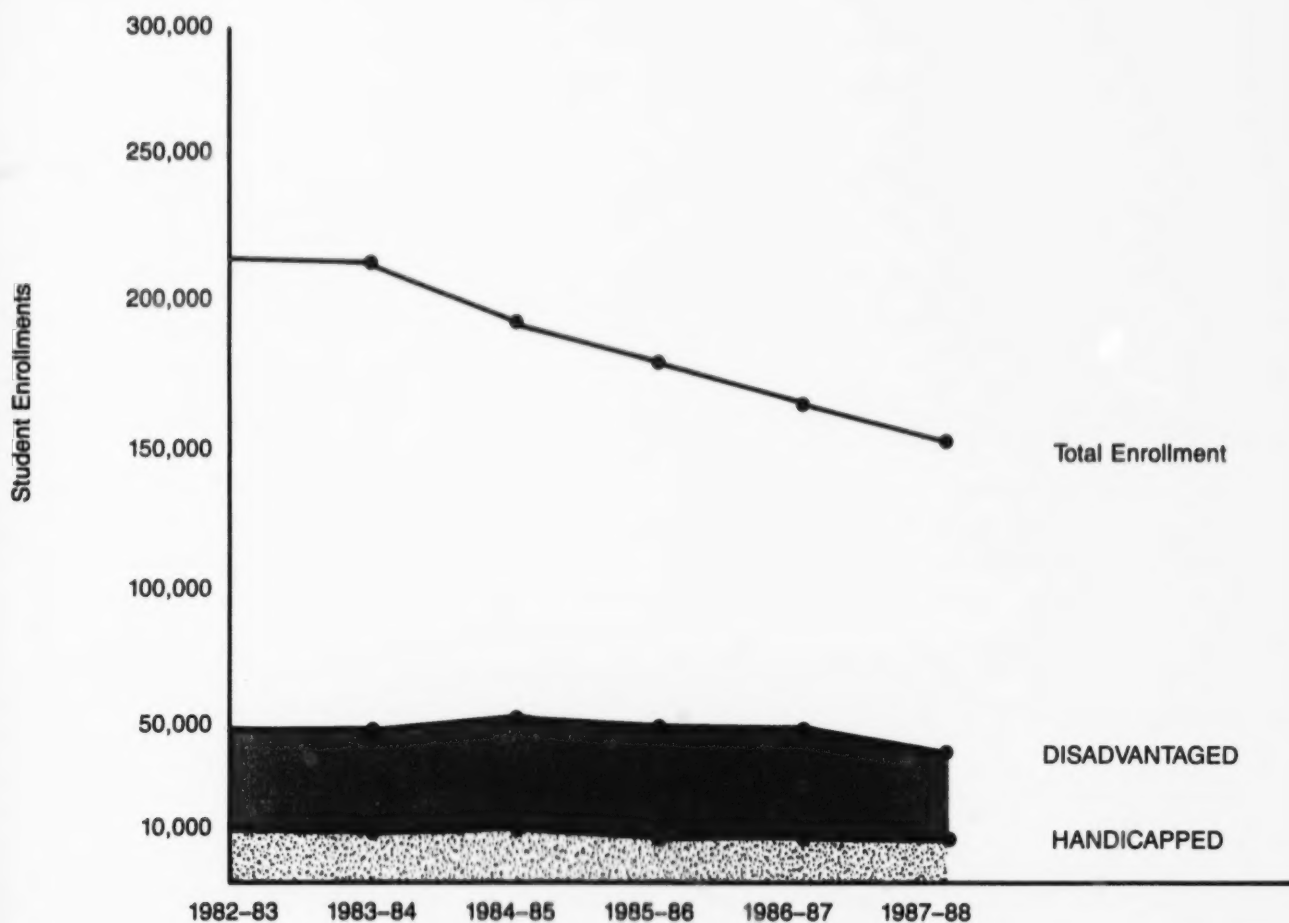
*Does not include students in correctional institutions.

Source: *Vocational Education Program Statistics, 1987-88*. Pennsylvania Department of Education.

Enrollments of Disadvantaged and Handicapped Students Remain Stable

Although secondary vocational education enrollments declined the last five years, the number of disadvantaged and handicapped students enrolled in secondary vocational education has remained relatively constant. While these special populations represent a higher percentage of the total student population than previously, these stable enrollments identify the continued need for vocational education for these students.

FIGURE IV: Handicapped, Disadvantaged and Total Vocational Education Enrollments, Secondary Level, 1983-88.



Student Organizations Decrease in Membership

Occupational skills learned in the classroom and laboratory are enhanced by the leadership experiences gained through participation in a vocational student organization. The number of vocational student organization chapters decreased as well as the overall membership in the organizations. This decline reflects the decline in the vocational student population.

TABLE VIII: Vocational Student Organization and Membership, 1985-89.

Student Organization	Chapters					Membership				
	1985	1986	1987	1988	1989	1985	1986	1987	1988	1989
TSA/AIASA*	34	37	37	41	42	2,585	3,486	6,210	6,203	5,810
DECA	99	91	92	89	90	4,359	4,147	4,450	4,034	3,676
FBLA	265	269	285	293	300	10,756	11,064	11,015	10,984	11,000
FFA	203	190	209	202	191	10,776	9,952	9,500	8,565	7,989
FHA-HERO	124	116	123	131	125	2,919	2,672	2,948	2,795	2,606
HOSA	46	50	41	49	51	1,826	1,932	1,761	1,665	1,642
VICA	83	106	107	106	87	22,572	23,863	22,044	22,089	22,307
TOTALS	854	859	894	911	886	55,793	57,116	57,928	56,335	55,030

*AIASA, the American Industrial Arts Student Association, was renamed the Technology Student Association, effective June, 1989.

Source: Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

Vocational Education Expenditures Continue to Increase

In 1987-88 vocational education expenditures reached \$486 million. State and local funds accounted for 92 percent of the expenditures for vocational education in Pennsylvania.

TABLE IX: Vocational Education Expenditures, 1981-88.

	FY81		FY82		FY83		FY84		FY85		FY86		FY87		FY88	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
	(millions)		(millions)		(millions)		(millions)		(millions)		(millions)		(millions)		(millions)	
Federal	32	8	33	8	32	8	35	8	33	8	40	9	39	8	41	8
State	225	61	242	62	265	63	270	63	283	65	284	64	312	65	299	62
Local	112	31	115	30	122	29	124	29	115	27	119	27	127	27	146	30
TOTALS	369	100	390	100	419	100	429	100	431	100	443	100	478	100	486	100

Source: 1980-81 through 1985-86 Accountability Reports and Vocational Education Statistics; 1986-87 and 1987-88 data, Bureau of Vocational and Adult Education, Pennsylvania Department of Education.

1988 Secondary Vocational Education Graduates Successfully Placed

Preliminary data indicate that 90 percent of Pennsylvania's 1988 vocational education graduates were gainfully placed following graduation. Gainfully placed means that the individual was placed in an occupation related to training, employed in an unrelated occupation, enlisted in the military service, or is pursuing further education.

TABLE X: Follow-up of Completers of Secondary Programs for 1987-88.

Program	—Employed, Military, Pursuing Education—												
	Total Surveyed	Total Response		Empl Relat	Empl Unrel	Mil Serv	Purs Educ	Total Gainfully Placed		Unemp Looking		Unemp Not Looking	
Agriculture Education	1,906	920	48.3%	302	308	76	152	838	91.1%	54	5.9%	28	3.0%
Business Education	14,124	7,056	50.0%	2,246	2,434	179	2,509	6,368	90.2%	445	6.3%	243	3.4%
Health Occupations Education	1,352	768	56.8%	316	146	19	198	679	88.4%	54	7.0%	35	4.6%
Marketing & Distributive Education	2,059	918	44.6%	337	216	34	208	795	86.6%	74	8.1%	49	5.3%
Occupational Home Economics Education	1,920	893	46.5%	311	208	40	145	704	78.8%	106	11.9%	83	9.3%
Trade & Industrial Education	14,917	7,346	49.2%	2,892	2,034	684	1,083	6,693	91.1%	467	6.4%	186	2.5%
Not Elsewhere Classified	2,269	968	42.7%	385	272	59	168	884	91.3%	51	5.3%	33	3.4%
TOTALS	38,547	18,869	49.0%	6,789	4,618	1,091	4,463	16,961	89.9%	1,251	6.6%	657	3.5%

Source: *VEMIS Follow-up of Completers of Approved Secondary Programs, Pennsylvania Summary, 1987-88*. Bureau of Information Systems, Pennsylvania Department of Education.

Adult Completers Achieved More Than 85% Placement Rate

According to preliminary survey data, more than 85 percent of Pennsylvania adult vocational education completers for 1987-88 were successfully placed following graduation. Of those, 31 percent were placed in jobs related to their training, 14 percent were in occupations unrelated to their training, and two percent enlisted in military service or pursued higher education.

TABLE XI: Follow-up of Completers of Adult Programs in 1987-88.

Program	—Employed, Military, Pursuing Education—												
	Total Surveyed	Total Response		Empl Relat	Empl Unrel	Mil Serv	Purs Educ	Total Gainfully Placed		Unemp Looking		Unemp Not Looking	
Agriculture Education	14	7	50.0%	1	5	0	0	6	85.7%	0	.0%	1	14.3%
Business Education	936	564	60.3%	203	201	0	36	440	78.0%	70	12.4%	54	9.6%
Health Occupations Education	1,407	885	62.9%	748	45	2	25	820	92.7%	19	2.1%	46	5.2%
Marketing & Distributive Education	13	12	92.3%	2	5	0	4	11	91.7%	0	.0%	1	8.3%
Occupational Home Economics Education	214	63	29.4%	22	14	0	7	43	68.3%	11	17.5%	9	14.3%
Trade & Industrial Education	2,001	1,041	52.0%	437	386	4	55	882	84.7%	75	7.2%	84	8.1%
TOTALS	4,585	2,572	56.1%	1,413	656	6	127	2,202	85.6%	175	6.8%	195	7.6%

Source: *VEMIS Follow-up of Completers of Adult Programs, Pennsylvania Summary, 1987-88*. Bureau of Information Systems, Pennsylvania Department of Education.

Earnings of Vocational Completers Vary by Sex, Level and Program Area

Earnings of 1988 vocational education graduates exhibit the same disparities in income reflected in the general economy. Earnings of males exceeded those of females in almost every occupational area and level of preparation. For males and females, completers of adult vocational programs had the highest income.

TABLE XII: Earnings of Employed Vocational Completers by Sex, Level and Program Area, 1988.

Level/Program	Average Hourly Salary	
	Female	Male
SECONDARY	\$5.54	\$6.61
Agriculture Education	4.63	5.84
Business Education	5.75	6.34
Health Occupations Education	5.34	5.47 *
Marketing & Distributive Education	5.05	5.68
Occupational Home Economics Education	4.53	5.26
Trade and Industrial Education	5.44	6.77
Not Elsewhere Classified	5.33	6.58
ADULT	7.69	9.43
Business Education	6.11	8.65 *
Health Occupations Education	8.22	8.21
Occupational Home Economics Education	5.27 *	6.91 *
Trade and Industrial Education	7.04	9.60

Note: The average hourly salary was computed from salaries reported in a survey of graduates by respondents employed 35 or more hours per week in a field related to their training.

*Less than 30 respondents

Source: Bureau of Information Systems, Pennsylvania Department of Education.

Most Special Needs Students Mainstreamed into Regular Programs

Special needs students may be enrolled in a separate vocational education program or in a mainstream program with regular students. In 1987-88, 81.8 percent of the handicapped and 91.4 percent of the disadvantaged students were in a mainstream program.

TABLE XIII: Secondary Special Needs Enrollments by Program, 1987-88.

Program	Handicapped	Disadvantaged
Agriculture Education	1,041	2,682
Business Education	771	9,991
Health Occupations Education	431	1,354
Marketing & Distributive Education	487	1,865
Occupational Home Economics Education	1,783	2,594
Trade & Industrial Education	7,305	16,744
Not Elsewhere Classified	1,602	1,649
Consumer & Homemaking Education	2,296	8,842
Industrial Arts	39	205
Total ^{1/}	15,755	45,926 ^{2/}

^{1/} Does not include enrollments in correctional institutions.

^{2/} Includes limited English proficiency enrollments.

Source: *Secondary Program Statistics, 1987-88*. Pennsylvania Department of Education.

15,000 JTPA Clients Receive Education Services

Job Training Partnership Act (JTPA) clients receive training in area vocational-technical schools, comprehensive high schools and community colleges on a contractual basis with Private Industry Councils. These vocational education agencies are given preference in supplying vocational training to JTPA clients. This training is funded by the Governor's Special Grant for Education (8% Funds) of JTPA. In 1987-88, 70 percent of those enrolled in JTPA programs completed the training. This is an increase of 5 percent over the previous year.

TABLE XIV: JTPA Enrollments and Completers by Program, 1987-88 (8% Funds).

	Enrollments	Completers
GRAND TOTAL	15,121	10,641
Program		
AGRICULTURE EDUCATION—TOTAL	27	22
Horticulture	27	22
BUSINESS EDUCATION—TOTAL	501	298
Accounting, bookkeeping and related programs	86	46
Business data processing and related programs	13	9
Business data programming	8	3
Computer and console operation	41	18
Data entry operation	78	58
General office and related programs	39	18
Secretarial and related programs	56	40
Secretarial, executive	7	0
Secretarial, legal	2	2
Secretarial, medical	45	21
Stenographic	11	7
Word processing	85	60
Other business education	30	16
HEALTH OCCUPATIONS—TOTAL	1,163	670
Dental services	61	36
Diagnostic and treatment services	39	22
Medical assisting	34	22
Medical laboratory technology	35	14
Mental health/human services	55	49
Nursing	250	145
Nursing related services	168	119
Occupational therapy assisting	9	4
Practical nursing	506	254
Other health occupations education	6	5
MARKETING AND DISTRIBUTIVE EDUCATION—TOTAL	13	8
Hotel/motel management	3	3
Other marketing and distributive education	10	5
OCCUPATIONAL HOME ECONOMICS EDUCATION—TOTAL	207	164
Child care services	20	18
Food protection, management and services	163	131
Other occupational home economics education	24	15

TABLE XIV (Continued)

TRADE AND INDUSTRIAL EDUCATION—TOTAL	491	319
Air conditioning, heating and refrigeration technology	7	4
Building and property maintenance	10	4
Carpentry	13	10
Computer and information sciences	42	27
Cosmetology	23	18
Data processing	15	13
Drafting and design technology	11	7
Drafting occupations	34	19
Electrical and electronic technology	63	29
Electrical and electronics equipment repair	25	23
Electrical and power transmission installation	9	9
Electromechanical instrumentation & maintenance technology	24	12
Graphic and printing communications	24	10
Heating, air conditioning and refrigeration mechanics	19	12
Machine shop	33	21
Meatcutting	2	2
Millwork and cabinet making	3	2
Security services	13	11
Vehicle and mobile equipment mechanics and repair	76	52
Welding	11	9
Other trade and industrial education	34	25
NOT ELSEWHERE CLASSIFIED—TOTAL	12,719	9,160
Adult basic education	4,559	2,978
English as a second language	469	402
General educational development	6,145	4,463
Other not elsewhere classified	1,546	1,317

Source: Pennsylvania Department of Labor and Industry.

Customized Job Training Provided for 120 Employers

In 1988-89, Pennsylvania's Customized Job Training (CJT) Program served 120 Pennsylvania employers. More than 11,000 persons participated in CJT funded projects. These projects provided training for new employees and for the upgrading and/or promotion of experienced employees.

The CJT program is fully supported by state funds. Training is provided in classrooms, shops/laboratories, and businesses by AVTs, community colleges, intermediate units, school districts, private postsecondary institutions, four-year colleges, and other service providers.

TABLE XV: Summary of Pennsylvania's Customized Job Training Program, 1983-89.

Year	New Jobs	Promotions or Upgrades	Total Trained	Expenditure (millions)	Employers Served	Projects Funded
1982-83	1,740	421	2,161	\$1.9	50	85
1983-84	1,328	1,317	2,645	\$4.6	58	111
1984-85	1,739	5,424	7,163	\$6.1	105	124
1985-86	3,052	12,919	15,971	\$11.9	162	164
1986-87	4,436	25,270	29,706	\$13.5	153	162
1987-88	4,826	14,627	19,453	\$13.5	156	198
1988-89	5,623	5,443	11,066	\$11.7	120	120
TOTALS	22,744	65,421	88,165	\$63.2	804	964

Note: Some companies participated in more than one training project.

Source: Pennsylvania Department of Education.

**PENNSYLVANIA COUNCIL ON
VOCATIONAL EDUCATION**

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